Electrolux: Jefferson, Iowa Property
Arnold, Doug
to:
Cynthia Hutchison
04/04/2012 01:11 PM
Cc:
Alyse Stoy, "Cal.Lundberg@dnr.iowa.gov", "John A. Heer"
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From: "Arnold, Doug" <Doug.Arnold@alston.com>

To: Cynthia Hutchison/R7/USEPA/US@EPA

Cc: Alyse Stoy/R7/USEPA/US@EPA, "Cal.Lundberg@dnr.iowa.gov" <Cal.Lundberg@dnr.iowa.gov>, "John A. Heer" <jheer@walterhav.com>

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Normal Priority. Follow up on 04/24/2012 at 10:00 AM.
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1 Attachment

Jefferson_ EPA Comments 4-12.pdf

RCRA
516203

Dear Cynthia:

Thank you again for EPA's comments on Golder's work plan for the next phase of investigations at Electrolux's Jefferson property. Golder's responses to the technical comments are attached. Golder will also incorporate the information set out in its responses into the field work. Additionally, Golder intends to follow appropriate quality assurance protocols to ensure that collected data are representative of site conditions.

As you know, the Jefferson facility never operated as a RCRA hazardous waste treatment, storage, or disposal facility. It also never operated any hazardous waste management units at the property. For those reasons, plus

others set out in my December 5, 2011 letter, Electrolux sees no reason, or benefit, to amending Golder's work plan to add the RCRA corrective action provisions included in your team's comments.

In terms of timing, Golder still hopes to start the site work on April 16th. We would be glad to keep you posted and, of course, will provide EPA with a complete set of all sampling results.

If you or colleagues have further questions, or would like to discuss this matter, please do not hesitate to let me know.

Regards, Doug

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EPA Comment 1 (Work Plan Objectives): *The objectives identified in the second and third bullets are associated with the RFI and CMS stages, respectively. The RFA should focus on activities including, but not necessarily limited to, the following: a) identification of* ***all*** *potential sources of contamination; b) identification of* ***all*** *products that were used at the facility; c) identification of all hazardous wastes that were generated; d) the identification of solid waste management units (SWMUs); e) quantities of products and hazardous wastes, stored/generated at the facility; f) hazardous waste storage and disposal information; and d) evaluating the presence/absence of contamination in soil and groundwater. The operating history of the facility should be thoroughly researched and then documented in the report. It is unclear why the objective only considers petroleum and volatile organic compounds since the constituents of potential concern (COPCs) have not been identified.*

Response: The Work Plan has been prepared to identify the source(s) and the nature and extent of petroleum and VOC impacts previously detected in site soil and groundwater. If, during the implementation of this Work Order other potential impacts are identified, they will be investigated in a similar manner either during this planned assessment mobilization or during a subsequent mobilization. The remaining comments about the Work Plan Objectives are **addressed in Electrolux counsel's letter**, dated December 5, 2011.

EPA Comment 2 (General Comment): *The text indicates that nine monitoring wells were installed to assess the shallow (i.e. upper 12 feet) groundwater flow direction. A detailed review of the boring logs indicated that the borings were of insufficient depth to encounter the saturated zone (water table). Thus, the direction of groundwater flow at the site has not been established and the potential impact to groundwater from site activities has not been assessed. Well records in the IDNR GEOSAM database for wells in the vicinity of the site indicate that sand and/or gravel zones exist within the till at various depths but generally at depths of 30 to 60 feet. These coarser-grained materials within the till are very likely to be water-bearing. Monitoring wells must be installed in the uppermost-saturated zone to evaluate the potential impact to groundwater.*

Response: To characterize the surficial geology on site, Golder advanced one borehole (GP-01) onsite to an approximate depth of 30 feet below ground surface during the 2010 assessment activities. The surficial geology includes till consisting of a sandy clay to an approximate depth of at least 30 feet below ground surface. Golder did not identify sand or gravel zones within GP-01.

During preparation of the Work Plan, Golder reviewed well logs available on the IDNR GEOSAM database and spoke directly with Mr. Bob McKay, of the Iowa Geological Survey. As stated in the Work Plan (Section 2.1.1, page 4), these findings are consistent with the City of Jefferson 2010 Consumer Confidence Report (CCR) on Water Quality which indicate that the overlying low permeability till material protects the underlying Pleistocene aquifer by reducing migration of contaminants. Golder did not identify IDNR GEOSAM bore logs for wells installed near the site that indicate the presence of sand or gravel zones within the top 100 feet of the till.

During the 2011 assessment activities, Golder installed monitoring wells within the upper saturated zone of the till materials. Observed depth to groundwater ranged from approximately two to eight feet below ground surface. Golder used industry-standard methods of contouring head elevations to identify shallow groundwater flow directions.

The Work Plan describes how Electrolux intends to define the vertical extent of soil and groundwater impacts using membrane interface probe (MIP), laser-induced fluorescence (LIF) technologies, soil sampling, and groundwater sampling. Golder anticipates that the low-permeability till materials have limited the potential for vertical migration of VOCs. However, should results of the assessment indicate that impacts extend to a greater depth, deeper monitoring wells will be installed, as appropriate.

EPA Comment 3 (Work Plan Objective): *The additional assessment of soil and groundwater is focused on the southern edge of building. The investigation activities should not be limited to this area but should*

also include areas where hazardous wastes were generated and stored and also where releases may have occurred. For example, a Site Map (Figure 3) shows the location of a former solvent AST on the west side of the former building. It appears that samples have not been collected in this area. A map figure that shows where hazardous wastes were generated and stored in addition to areas where products were stored should be included in the document. This comment applies to subsequent portions of the document.

Response: As stated in the Work Plan Objectives (Section 1.4) and the MIP/EC and LIF Screening Survey section (Section 3.2), Golder intends to assess soil and groundwater conditions beneath the former building slab including the area of the former solvent storage AST even though, as previously stated, there is no current information to indicate any potential impacts exist at these other areas. Figure 6 provided the initial boring locations to calibrate the MIP/LIF equipment to known concentrations of VOCs and petroleum-impacted soils. Following the calibration step, Golder will advance borings beneath the former building to identify potential source areas and define the nature and extent of soil and groundwater impacts.

EPA Comment 4 (Refinement of the Conceptual Site Model): *The development of a conceptual site model is beneficial; however, according to Figure 3 (Site Map), most of the existing data points are situated in the southern portion of the site. The modeling of large areas based on sparse data points can lead to erroneous interpretations of site conditions and thus, an inaccurate Conceptual Site Model. As indicated in a previous comment, none of the borings are of sufficient depth to have intercepted the water table; thus, groundwater data are nonexistent at the present time.*

The last statement of this section states that the model will be used to assess the vertical and horizontal extent of soil and groundwater impacts. The extent of soil and groundwater impacts must be based on valid laboratory data. Revise the text to delete this statement.

Response: Section 2.0 of the Work Plan provided Golder's current Conceptual Site Model (CSM) based on analytical data obtained during the 2011 assessment activities. As EPA is aware, a CSM should be continually updated as new data are obtained. Golder will revise the CSM following the MIP/LIF survey and the collection of confirmation soil and groundwater laboratory data. The Work Plan includes the collection of up to 60 soil samples from 20 soil borings to confirm the MIP/LIF results and install up to an additional 10 monitoring wells. It is Electrolux's intent to collect an appropriate number of soil and groundwater samples and to analyze the samples using appropriate laboratory methods and QA/QC protocols, such that the CSM can be fully-developed for use on future remedial decisions.

EPA Comment 5 (MIP/EC and LIF Screening Surveys): *The proposed screening survey is a reasonable approach to determining the presence or absence of chlorinated volatile organic compounds (CVOCs) and petroleum compounds; however, these screening methods are not capable of detecting other constituents such as metals and PCBs. Screening (for CVOCs and petroleum compounds) and/or sampling (for non-volatile constituents) should begin immediately adjacent to each potential source and proceed laterally and vertically based on the results from the initial data points. If extremely high concentrations of contaminants, especially CVOCs and petroleum compounds, are suspected or detected in the subsurface, care should be taken so that a vertical conduit for contaminant migration is not created by pushing the rods through areas where free product may exist.*

Response: During the 2011 assessment activities, Golder collected soil samples for laboratory analysis of polychlorinated biphenyls (PCBs) and RCRA-8 metals (i.e., arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). The laboratory did not detect any PCBs at concentrations above the laboratory reporting limits. The laboratory detected arsenic, barium, chromium, and lead at concentrations above the laboratory reporting limits but at concentrations consistent with background concentrations. Consequently, as described in the May 13, 2011 letter report, metals and PCBs are not considered a constituent of potential concern for the site.

In accordance with our Standard Operating Procedure (SOP) 10 – Borehole Abandonment Procedures, the drilling subcontractor will immediately grout the boreholes advanced through gross contamination.

Grouting the boreholes immediately after they are advanced will reduce the potential for vertical migration of contaminants.

EPA Comment 6 (Schedule and Reporting): *Revise the text to specify that the complete laboratory data package will be included in the Assessment Report.*

Response: The laboratory data package will be included in the assessment report.

EPA Comment 7 (SOP-11 Slug Testing Procedures): *The removal of water from the well with a pump is not recommended, as this method cannot induce an instantaneous change in water level. A solid cylinder should be used as a "slug." A pressure transducer and a data recorder should be used to obtain water level data. Early time data are very important; manual measurements will not provide sufficient early time data.*

Response: It is Golder's experience based on previous groundwater sampling and water level measurement activities at the site that groundwater recharge into the monitoring wells is slow. Golder anticipates that the wells will not fully recharge within a 24-hour period and that the volume of water in the 1.5-inch diameter wells can be quickly evacuated using a peristaltic pump. The slow recharge will allow for the collection of water level data using a water level meter. It is Golder's opinion that the slug testing procedures developed for this site are acceptable and will generate valid results. Should materials that are more permeable be encountered, Golder will consider the use of a slug and transducer equipment to complete the slug testing.